

Deren 55291

# Work Order ID 53226

October 27, 2009 1:05:12 PM



Page 1

Item ID: D3943-053

Accept



Setup Start



Revision ID: B

Stop



Item Name: Chain Assembly

Start Date: 10/27/2009 Start Qty: 9.00



Cust Item ID:

Required Date: 11/2/2009 Req'd Qty: 9.00



Customer:

Reference:

Approvals: Process Plan: MF

Date: 09-10-27 Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
100	Weld per dwg A/R Steel rod Batch: <u>M111385</u>	0.00							

D3943  
  
Large Fab

B

Memo 0.00

Large Fab ASSEMBLE BEFORE WELDING

Gd 09 11 11

110 QC9- Inspect visual per QSI004- Fusion Welds 0.00

QC  
Quality Control

Memo 0.00

PD 09.11.11

120 QC5- Inspect part completeness to step on W/O 0.00

QC  
Quality Control

Memo 0.00

S BS 11.11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 53226**

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October 27, 2009 1:05:12 PM

Item ID:	D3943-053	Accept		Setup	Start				
Revision ID:	B			Stop					
Item Name:	Chain Assembly								
Start Date:	10/27/2009	Start Qty:	9.00		Cust Item ID:				
Required Date:	11/2/2009	Req'd Qty:	9.00		Customer:				
Reference:									
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start			
	QC:	Date:	SPC (Y/N):	Date:	Stop				
Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 	Spray Painting per QSI005 4.2	0.00							
SprayPaint	Memo	0.00							
Spray Painting	1- MASK CHAIN FROM THIS POINT ON PRIOR TO PAINTING AS PER DWG								
	2-SPRAY PAINT YELLOW AS PER DWG A/R BATCH: M113541	Powder coat Hybrid Yellow HS112 Y12 (Ref PAR10-w01 10-01-07)							
		Start: 2:00 pm	Temp: 82°F	Stop: 2:30 pm					
140 	QC14 Inspect Spray Paint	0.00							
QC	QC3	0.00							
Quality Control	Memo	0.00							
150 	Identify as per dwg & Stock Location: W/O	0.00							
Packaging	Memo	0.00							
Packaging	52944								
	EL 10712								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**Work Order ID 53226**

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October 27, 2009 1:05:12 PM

Item ID:	D3943-053	Accept		Setup	Start		
Revision ID:	B				Stop		
Item Name:	Chain Assembly						
Start Date:	10/27/2009	Start Qty: 9.00		Cust Item ID:			
Required Date:	11/2/2009	Req'd Qty: 9.00		Customer:			
<b>Reference:</b>							
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 	QC21- Final Inspection - Work Order Release	0.00							10/01/13
QC	Memo	0.00							

Quality Control

MF 10-1-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

October 27, 2009 1:05:12 PM

Page 1

Work Order ID: 53226



Parent Item: D3943-053RevA



Parent Item Name: Chain Assembly

Start Date: 10/27/2009

Required Date: 11/2/2009

Comments:

Start Qty: 9.00

Required Qty: 9.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3954-5RevA 		Manufactured	No			100	Each	11.0000	9.0000		<i>Cpl 09-11-11</i>	

Chain Lug

Warehouse      Loc Qty      Loc Code

Location

Main Warehouse

ST139C                    11  
52098                    6  
52982                    5

*(1) - (4)*  
*(5)*

✓

D3954-9RevA



Manufactured

No

100

Each

35.0000 9.0000



GWT Chain Pin

Warehouse      Loc Qty      Loc Code

Location

Main Warehouse

ST                            35  
52100                    4  
52193                    1  
52991                    30

*(3)*  
*(6)*

✓

Work Order ID: 53226



Parent Item: D3943-053RevA



Parent Item Name: Chain Assembly

Start Date: 10/27/2009

Required Date: 11/2/2009

Comments:

Start Qty: 9.00

Required Qty: 9.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3954-5RevA 		Manufactured	No			100	Each	11.0000	9.0000		<i>Cpl 09-11-11</i>	

Chain Lug

Warehouse      Loc Qty      Loc Code

Location

Main Warehouse

ST139C                    11  
52098                    6  
52982                    5

*(1) - (4)*  
*(5)*

✓

D3954-9RevA



Manufactured

No

100

Each

35.0000 9.0000



GWT Chain Pin

Warehouse      Loc Qty      Loc Code

Location

Main Warehouse

ST                            35  
52100                    4  
52193                    1  
52991                    30

*(3)*  
*(6)*

✓

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

RELEASED  
2009-10-19  
*[Signature]*

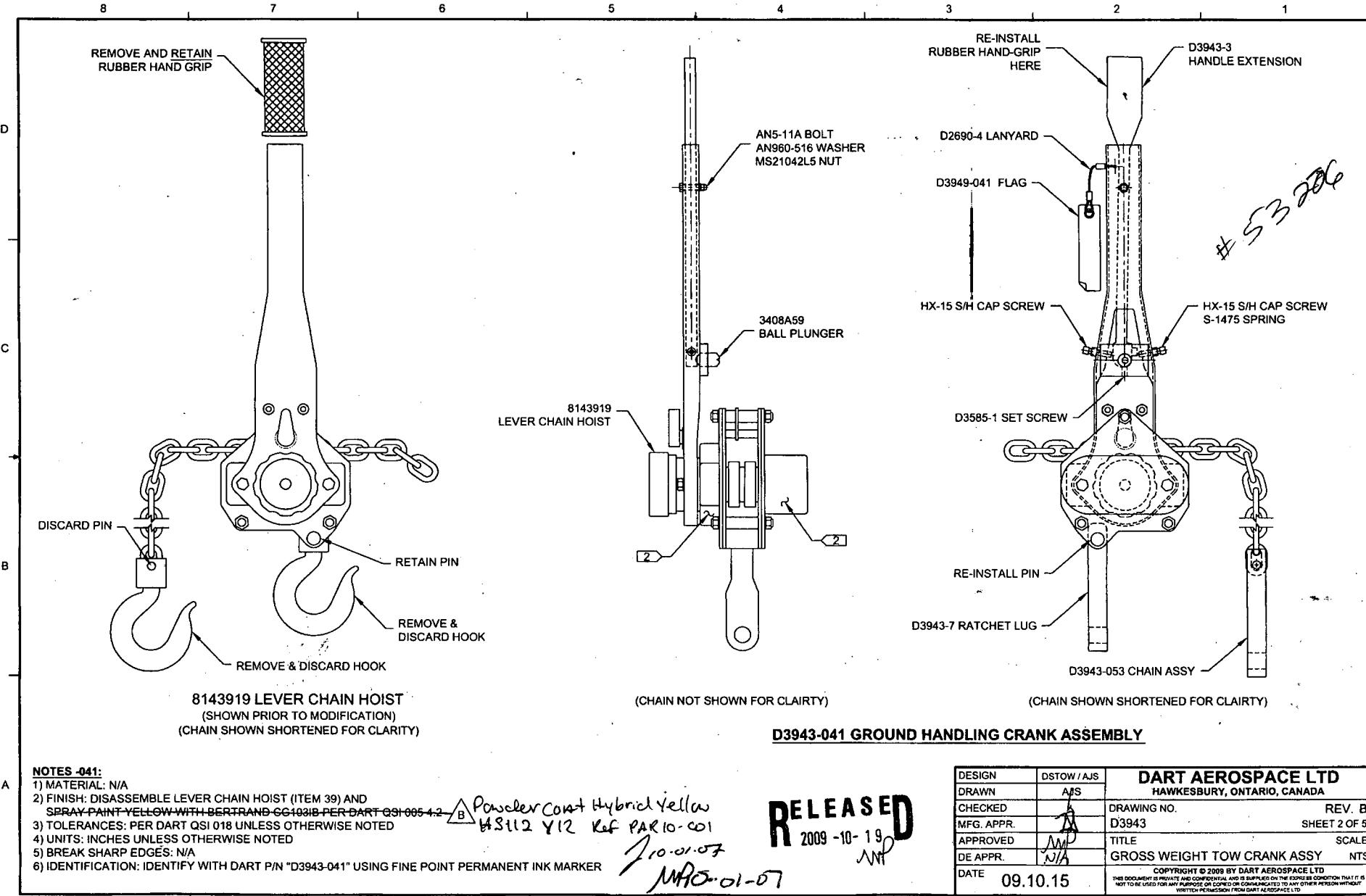
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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DESIGN	DSTOW / AJS	<b>DART AEROSPACE LTD</b>
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO.
MFG. APPR.		REV. B
APPROVED		D3943
DE APPR.		SHEET 2 OF 5
DATE	09.10.15	TITLE
		SCALE
		GROSS WEIGHT TOW CRANK ASSY
		NTS

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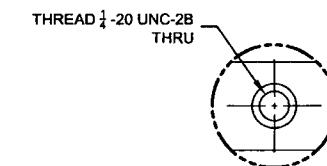
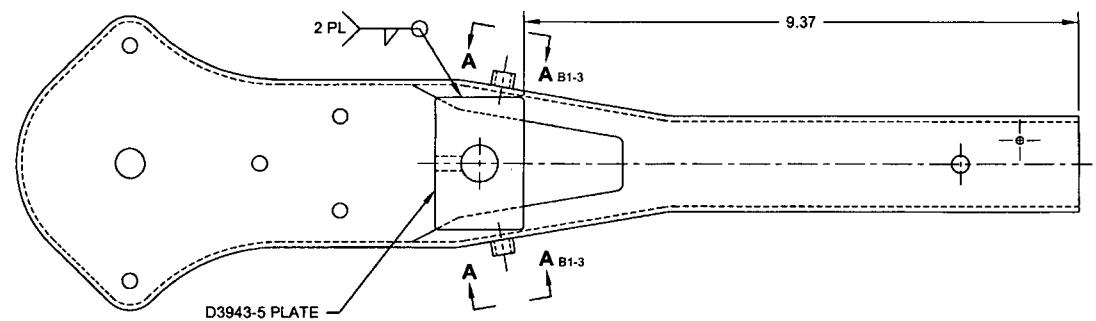
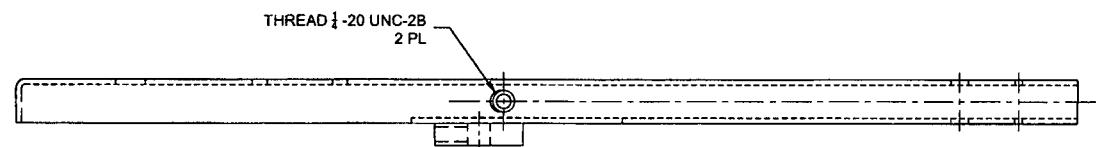
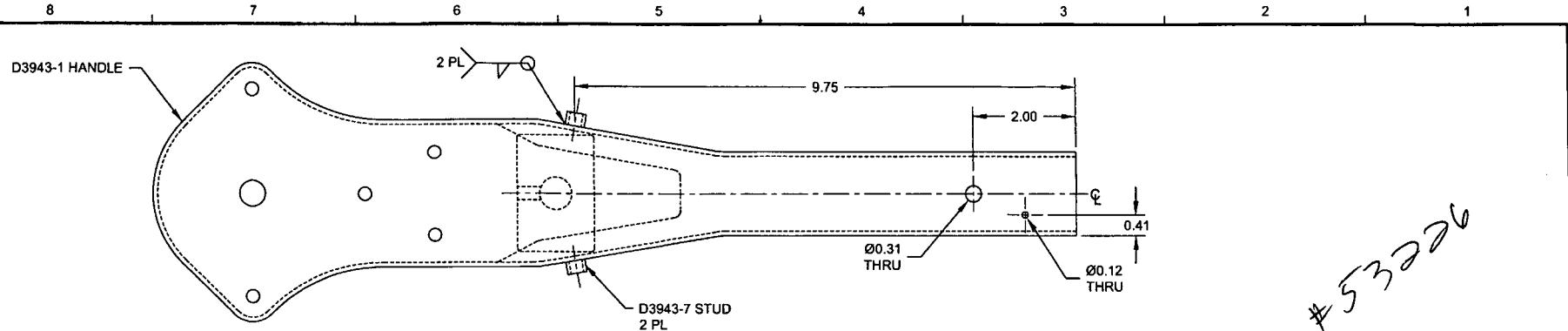
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



**VIEW A-A** A5-3  
(SCALE 2X) B5-3

**RELEASED**  
R 2009-10-19  
*[Handwritten signature]*

**NOTES -051:**

- 1) MATERIAL: N/A
- 2) FINISH: SPRAY PAINT YELLOW WITH BERTRAND CG103IB PER DART QSI 005 4.2 **B**
- 3) TOLERANCES: X.XX DIMENSIONS +/- 0.06 ALL OTHERS  
PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) MASK ALL THREADS PRIOR TO POWDER COATING

**D3943-051 HANDLE ASSEMBLY**

DESIGN	DSTOW / AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<b>X</b>	REV. B	
MFG. APPR.	<b>X</b>	DRAWING NO.	SHEET 3 OF 5
APPROVED	<b>X</b>	D3943	
DE APPR.	<b>X</b>	TITLE	SCALE
DATE	09.10.15	GROSS WEIGHT TOW CRANK ASSY NTS	

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

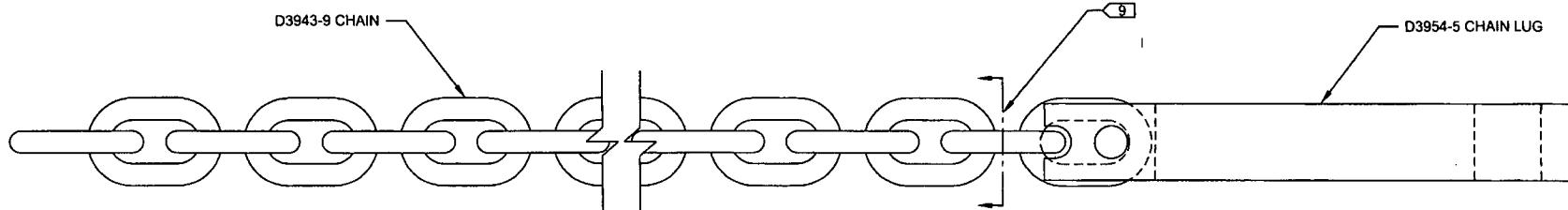
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 1 7 1 6 1 5 1 4 1 3 1 2 1 1

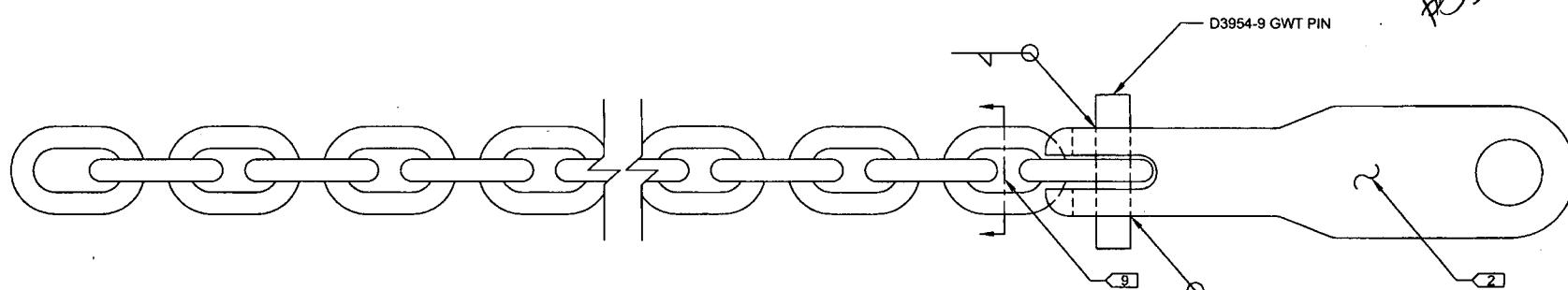
D

D



C

C



B

B

### D3943-053 CHAIN ASSEMBLY

RELEASED  
2009-10-19  
MP

**NOTES -053:**

- 1) MATERIAL: N/A
- 2) FINISH: SPRAY PAINT YELLOW WITH BERTRAND CG103IB PER DART QSI 005 4.2 
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) WELD PER QSI 004
- 9) MASK CHAIN FROM THIS POINT ON PRIOR TO POWDER COATING

8 1 7 1 6 1 5 1 4 1 3 1 2 1 1

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3943	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		GROSS WEIGHT TOW CRANK ASSY	NTS
DATE	09.10.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD	

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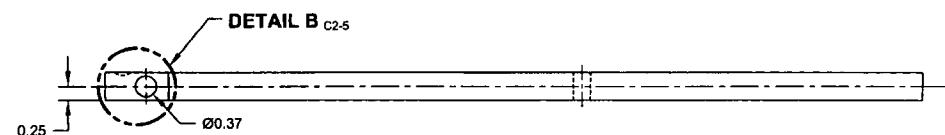
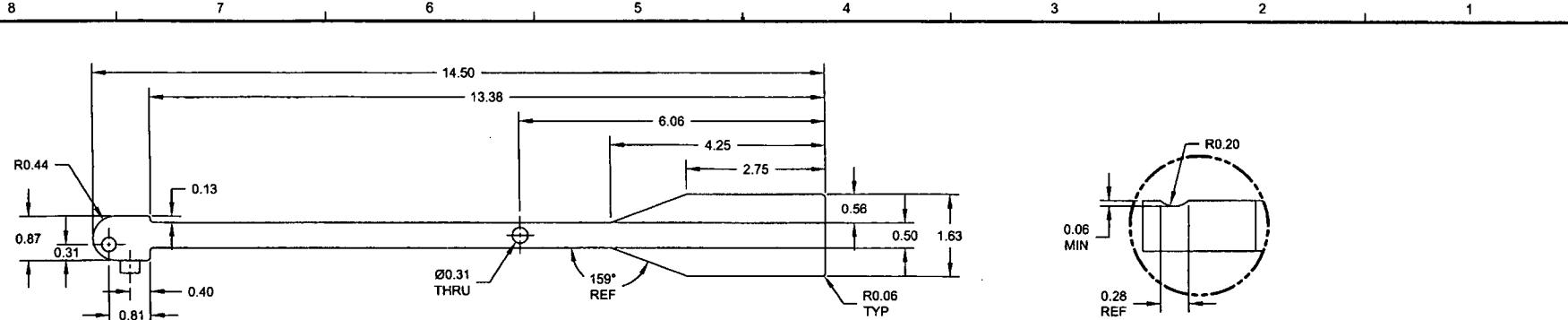
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

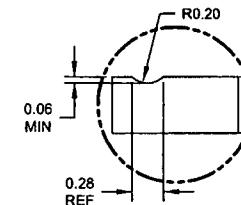
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3943-3 HANDLE EXTENSION

#53226

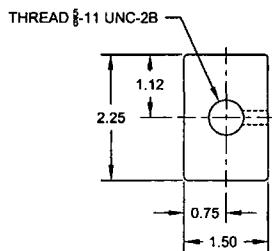


**NOTES -11/13:**  
1) MATERIAL -3 & -5: MILD STEEL, SHEET  
AISI 1010-1025 OR ASTM A36/A366/A1008  
OR CSA G40-21, 38W/44W/50W/60W/70W  
REF DART SPEC M1010-S

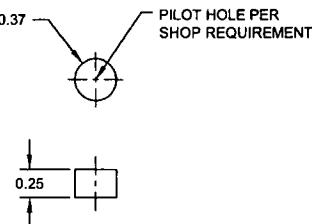
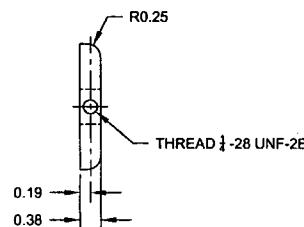
OR : MILD STEEL, BAR  
AISI 1010-1025 OR ASTM A36/A366/A569/A570  
OR CSA G40-21, 38W/44W/50W/60W/70W  
REF DART SPEC M1010-B

-7: MILD STEEL, ROUND BAR  
AISI 1018-1025  
PER MIL-S-7097  
REF DART SPEC M1018-R

2) FINISH -3: SPRAY PAINT YELLOW WITH BERTRAND CG103IB PER DART QSI 005 4.2 △  
3) TOLERANCES: PER DART QSI 016 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: N/A



D3943-5 PLATE



D3943-7 STUD  
(SCALE 2X)

**RELEASED**  
2009-10-19  
M

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.	N/A	D3943	SHEET 5 OF 5
APPROVED	N/A	TITLE	SCALE
DE APPR.	N/A	GROSS WEIGHT TOW CRANK ASSY	
DATE	09.10.15	NTS	

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W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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